OPR 03-02: FLEET MANAGEMENT IN THE CITY OF CHATTANOOGA
DECEMBER 2002

Summary

In the absence of a centralized fleet management system, Chattanooga lacks an accurate fleet inventory and efficient policies for vehicle disposal, acquisition and take home use of City vehicles. As a result, both police and non-police vehicles are underutilized adding a minimum of $450,000 a year in additional maintenance costs.

Scope and Objectives

The Internal Audit staff of the Office of Performance Review (OPR) has completed an audit of the utilization and costs associated with the management of the passenger vehicle fleet of the City of Chattanooga for the period of July 1, 2001 to June 30, 2002.

The objectives of this audit were:

1. To determine if the City's fleet of passenger vehicles is being effectively and efficiently utilized during normal duty hours.

2. To assess the advantages, disadvantages and cost implications of centralizing the fleet management function for the Police Department.

Background

In FY 2002, the City of Chattanooga spent $7,926,623.22 on maintaining a fleet of 1700 equipment and vehicles for its departments and other government entities. During the same fiscal year, the City spent $3,102,314.84 to acquire vehicles and equipment. In the two prior years – FY 2000 and 2001 – the City spent a total of $13.1 million on acquiring new vehicles.

TABLE 1
SPENDING BY CITY DEPARTMENTS ON FLEET MAINTENANCE AND ACQUISITION[1]
FY 2002

Department	Maintenance Costs	Purchases
General Government	$52,093.12	$103,431.39
Finance & Administration	$289,110.78	$65,165.54
Police	$2,022,502.48	$606,789.05
Fire	$882,340.98	$1,123,853.60
Public Works	$4,314,060.20	$406,510.69
PRAC	$227,816.16	$416,948.76
Human Services	$119,237.50	$362,812.71
Personnel	$1,753.68	
Neighborhood Services	$15,846.01	$16,803.10
Office of Mayor	$1,862.31	

Prior to 1990, the City of Chattanooga had a decentralized system of fleet maintenance. All vehicles belonging to the Fire and Police Department were repaired and maintained at the Amnicola Garage while other departments' vehicles were repaired at the 12th Street Garage – with smaller maintenance and repair work done at the Warner Park and Moccasin Bend garages. In 1990, a move to centralize Fleet Services under the General Services Department led to the closing of the Warner Park and Moccasin Bend garages. Fleet Services assumed operation of the Amnicola Garage to repair fire equipment and passenger vehicles and the 12th Street Garage to repair all the heavy equipment. On July 1, 2001, Fleet Services became part of the Finance & Administration Department.

Fleet Services provides for repairs and maintenance of all vehicles and equipment and the fuel for all city owned vehicles. At the end of each month, each department is billed for the fuel, repairs and maintenance of their vehicles.

[1] Data on vehicle acquisition and maintenance includes all vehicles (e.g. fire trucks, sanitation trucks, etc.), not just passenger vehicles. Maintenance also includes the cost of fuel, carwashes, and licenses.

While fleet maintenance is now centralized, fleet management remains decentralized. Each department is responsible for the acquisition, distribution, use, and disposal of its own vehicles. As a result, different departments may purchase different cars requiring Fleet Services to stock different replacement parts and to train mechanics to maintain multiple vehicle types. While Fleet Services actually performs maintenance, each Department determines when maintenance is necessary and what work should be performed.

In the absence of a centralized fleet management system, there is neither an agreed upon nor accurate single inventory of vehicles owned by the City of Chattanooga. Each department is responsible for notifying Fleet Services of any changes of location for vehicles or disposals. Fleet Services uses the Ron Turley Associates software, otherwise known as the RTA system. In order to use Fleet Services fueling facilities, a department must notify Fleet Services and be assigned a vehicle number. The RTA computer system then tracks repairs, maintenance and fueling for each vehicle.

Methodology

In preparation of this audit, Internal Audit staff reviewed the June 2002 University of Tennessee's Municipal Technical Advisory Service (MTAS) preliminary study of the benefits of centralized fleet administration. MTAS also provided auditors with information on take home car policies in other Tennessee municipalities. Internal Audit conducted a detailed review and analysis of data in the RTA system. Auditors selected a random sample of 38 City vehicles -- 18 from the Police department and 20 from other City departments -- and verified their actual odometer readings and vehicle condition. In addition to the random sample, Internal Audit staff analyzed utilization of 30 Police Department vehicles identified in the RTA system as having high odometer readings. Auditors examined odometers and serial numbers and interviewed users about vehicle performance.

Auditors interviewed additional City personnel in other City departments to confirm actual odometer readings for those vehicles with high odometer readings and conducted interviews with every City department regarding vehicle acquisition and disposal policies.

Auditors also contacted four cities -- Durham, North Carolina, Knoxville, Tennessee, Tempe, Arizona, and Winston Salem, North Carolina -- regarding size of fleet, fleet administration policies, vehicle utilization standards and take home policies. In addition, auditors reviewed utilization standards developed by the National Association of Fleet Administrators (NAFA).

Findings and Recommendations

RTA does not contain accurate mileage data.

Odometer readings for vehicles in the RTA system are frequently wrong. RTA depends on information entered by vehicle users. The system allows vehicles to enter odometer readings while fueling. The system allows the user to input any number and receive fuel. At this time, there are no checks in place to stop individuals from entering erroneous mileage information. Auditors observed readings where there were clearly extra digits added or drivers simply entered 99999. Once the wrong number is entered at the pump, the driver cannot correct it.

In addition, for those vehicles that have not been fueled over a period of time, RTA automatically assigns a date of last fueling. As a result, during the review of RTA data, auditors identified vehicles that appeared to continue to be using the City garages after they had already been disposed of by the City. In fact, the change in the City's inventory had never been recorded and the RTA system erroneously entered a new fueling date.

Since the RTA system contains the erroneous odometer readings, it cannot be used to schedule regular maintenance. RTA also cannot be used to analyze utilization or cost per mile data for individual vehicles.

Recommendation

Fleet Services should (a) develop a method within the fuel management system to assure odometer accuracy and vehicle identification while reducing human intervention; and (b) establish a monthly review process to verify and correct potentially false readings. Fleet Services has already implemented a process that would require odometers to be checked and readings corrected whenever a vehicle is in the garage for maintenance.

RTA does not accurately reflect the current City fleet inventory.

During the course of the audit, auditors identified 20 vehicles that were still listed in the City RTA system, but had in fact been sold at auction – in some cases, several years earlier.

While the City Purchasing Department is responsible for auctioning City vehicles, there is no process for Purchasing to notify Fleet Services when a vehicle is sold so that it can be removed from the City inventory.

In seven cases, we identified vehicles that were no longer drivable, but the responsible department just parked the vehicle rather than disposing of it by auction or salvage. In 14 cases, we found vehicles that were still listed in the RTA system but could not be located by the department. In five cases, we found that divisions

within departments had “swapped” vehicles or drivers without notifying Fleet Services so that car locations were not updated in the RTA system. Since the departments own the vehicles they do not feel obligated to notify Fleet Services or Accounting about the location or condition of their cars.

Recommendation

All vehicles declared surplus should be transferred to Fleet Services as the first step toward disposal. Fleet Services should determine if the vehicles or their parts merit salvaging. Fleet Services, in conjunction with Purchasing, should be responsible for disposal. Fleet Services in conjunction with all Departments should review vehicle inventory printouts on a semi-annual basis to verify that the RTA system contains accurate information.

Fleet Services should also set citywide standards and criteria for determining when a vehicle should be considered for salvage or auction. Departments should be required to apply these criteria in all salvage and auction requests to Purchasing.

Most departments lack a specific policy for vehicle disposal, acquisition and take home vehicles.

Based on interviews with Department personnel, auditors determined that most departments do not have a set policy for when to retire or acquire vehicles. Finance & Administration will retire a vehicle after 120,000 miles or 10 years – or 150,000 miles for diesel vehicles. The Police Department’s directive sets 110,000 miles/five year as the vehicle life cycle and sets milestones for inspections and disposal. Other departments however do not have any set policies on exact age or mileage to determine when to retire and dispose of a vehicle. Most departments review vehicles on a case-by-case basis and will not dispose of the vehicles until they are confident they can replace them. This practice leads to higher maintenance costs for the older vehicles and a larger fleet.

There is no plan for pooling cars between departments. Each department is responsible for assigning vehicles that the department owns. Also, there is no coordination between departments to share the usage of any vehicles.

Similarly, most departments do not have a policy for determining which employees receive a take home vehicle. The Police Department has set their own policy for take home cars based on officer seniority and rank. The only citywide policy – apparently now ignored – was a 1986 Resolution that prohibited the assignment of additional vehicles without permission of the City Commission. Currently, there are 385 take home cars, with 327 in the Police Department and 58 assigned to other departments.

In interviews with personnel from other cities, auditors found that several cities did have uniform policies on take home vehicles. In Knoxville, Tennessee, there were

specific policies established based on job requirements. In Winston Salem, North Carolina, the policy precludes any take home car privileges. In Tempe, Arizona, the City did not have any take home cars but permitted employees to seek reimbursement for mileage when using their personal vehicles on official business. We found the cities of Clarksville, Hendersonville, Johnson City, and Murfreesboro, Tennessee allows all police officers to have take home cars.

Recommendation

Fleet Services should develop criteria for disposing of vehicles and apply this policy to all departments. The policy should be tailored to individual departmental needs, where applicable, but based on national standards for vehicle life cycle, such as those currently applied by the Finance Department.

Fleet Services, working with the Office of Performance Review, should also establish a citywide policy on take home vehicles. The creation of a private vehicle use reimbursement process – modeled after the process in Tempe, Arizona should be seriously considered.

Non-police vehicles are being underutilized.

According to RTA, there are 462 non-police passenger vehicles owned and in use in City departments. This is the best estimate of the current non-police inventory of passenger vehicles.

Auditors compared utilization of City vehicles with the NAFA standard – both for passenger vehicles and police vehicles. Once auditors determined that mileage information in RTA is grossly unreliable (see detailed finding above), they reviewed the odometer readings – personally checking and verifying the reading – on a random sample of 20 non-police passenger vehicles and 18 police cars. Mileage was then divided by the number of years since the City had acquired the vehicle to come up with an estimated annual utilization.

For non-police passenger vehicles, the estimated annual average utilization was 10,597 miles per year – compared to the NAFA standard of 12,000 miles per year. If you apply this estimated usage to all non-police passenger vehicles, it suggests that total annual utilization for non-police passenger vehicles is approximately 5,233,536 miles yearly. If the City were meeting the NAFA standard – each vehicle driving 12,000 miles per year – it suggests that the City would only need 408 non-police passenger vehicles, 54 fewer than it currently has.

By reducing non-police fleet size and achieving more efficient use of the fleet, the City should achieve savings through reduced fleet replacement costs and reduced maintenance costs. For example, if an 11.7% reduction in the non-police fleet led to a commensurate reduction in maintenance costs for non-police passenger vehicles–

excluding fuel costs which should remain the same – the City could realize $200,000 in annual savings on maintenance costs[2] and could also reduce capital expenditures.

Recommendation

Fleet Services, with the assistance of OPR and the cooperation of all City departments, should develop a plan for the reduction in non-police fleet size. The plan should assess the feasibility of creating a centralized vehicle pool for most City departments and sale of surplus vehicles. The goal would be a reduction of 54 vehicles.

Police Department vehicles are under utilized.

Auditors applied a similar utilization analysis for Police Department vehicles and compared average annual utilization to NAFA's standard of 25,000 miles per year for patrol cars. Based on data from the random sample of 18 police vehicles, average annual utilization was 19,059 miles per year – just over 75% of the NAFA standard.[3]

The auditors estimated that 90% of the Police Department's fleet of 567 passenger vehicles – 510 cars -- should be held to the higher 25,000 mile per year utilization standard. Based on this assumption and the sample average utilization, patrol cars currently travel 9,720,090 miles yearly. If average utilization met the national standard, the Police Department would only need 389 cars for patrol – a reduction of 121 vehicles or 21.3% of the total police passenger vehicle fleet. A proportionate reduction in Police Department maintenance costs could save as much as $250,000 a year and could also reduce capital expenditures. Even if the Department sought to meet its implicit life cycle based upon the utilization standard – 22,000 miles per year – the Department would only need 442 cars for patrol – a reduction of 68 patrol cars.

The Department's take home policy is a significant factor in underutilization of the fleet. Non-take home vehicles are available for police use 21 shifts a week. Take home vehicles, on the other hand, are only available for police – as opposed to personal – use five shifts per week. While the Police Department has capped the number of take home vehicles at 327 that represents 58% of the total Police passenger vehicle fleet. The relatively high percentage of take home vehicles may be one reason that annual utilization rates are so low.

Within the last two years, two other cities – Baltimore and Denver – have achieved significant reductions in take home vehicles in their Police Departments. As part of

[2] This analysis is based on parts and labor costs at the Amnicola Garage – adjusted down based on an assumption that 70% of parts and labor costs attributable to the Fire Department is for work performed on non-passenger vehicles.

[3] Auditors had initially selected a sample of 22 police vehicles. Four of those vehicles, however, had specialized uses. Because auditors were concerned that the relatively low average utilization for these vehicles would skew the sample results, they were removed from the sample.

its CitiStat process, Baltimore reduced the number of take home vehicles in their Police Department by 45.9%. In Denver, the City reduced the number of Police take home vehicles by 14% and Mayor Wellington Webb signed an executive order barring the use of take home police vehicles more than 25 miles from their place of work.

Recommendation

By February 1, 2003, Fleet Services and the Police Department should develop a plan to reduce the Police Department fleet by 68 to 121 vehicles within the next two years. The plan should identify specific vehicles for salvage or surplus, evaluate the continued utility of the assignment of take home vehicles, and identify the operational implications of fleet reduction, particularly on the Department's ability to have an adequate number of reserve vehicles.

Deleted: